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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/584,423 | 06/22/2006 | Yasuhito Yaji | 01381/10 | 1253 |

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| 26646 | 7590 | 08/14/2007 |
| KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004 | | |

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| EXAMINER | |
| SHECHTMAN, SEAN P | |

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| ART UNIT | PAPER NUMBER |
| 2125 | |

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| MAIL DATE | DELIVERY MODE |
| 08/14/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/584,423

Applicant(s)

YAJI ET AL.

Examiner

Sean P. Shechtman

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-46 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1, 30, 33, 34, drawn to a production instruction obtained by an optimization calculation device is supplied to a production simulator to cause it to execute simulation, an instruction to perform optimization calculation is output to said optimization calculation device from said production simulator whenever a new event occurs, and thereby said production simulator and said optimization calculation device are linked to each other to create the production schedule in the production process.

Group II, claim(s) 2-12, 31, 35, 36, 39, 41, 43, 44, drawn to a production schedule in the production process created from a simulation result obtained by repeating processing of calculating a feedback gain by optimization calculation processing, calculating production instruction by using the feedback gain and production state to supply the production instruction to production simulator to proceed with simulation, obtaining a new production state, and calculating a new production instruction based on the new production state.

Group III, claim(s) 13-28, 32, 37, 38, 40, 42, 45, 46, drawn to production schedule in the production process is created from a simulation result obtained by repeating processing of calculating production instruction for a time period previously set from present time by optimization calculation processing (instruction calculation time period) to supply the production instruction to production simulator, executing simulation for only a previously set time period (simulation time period) to determine a production schedule for a previously set time period (schedule determination time period), and setting a date and time immediately after the above described determined time period as a new schedule creation starting time and time to formulate a production schedule.

The inventions listed as Groups I, II, III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of Group I is a production instruction obtained by an optimization calculation device is supplied to a production simulator to cause it to execute simulation, an instruction to perform optimization calculation is output to said optimization calculation device from said production simulator whenever a new

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event occurs, and thereby said production simulator and said optimization calculation device are linked to each other to create the production schedule in the production process, the special technical feature of Group II is a production schedule in the production process created from a simulation result obtained by repeating processing of calculating a feedback gain by optimization calculation processing, calculating production instruction by using the feedback gain and production state to supply the production instruction to production simulator to proceed with simulation, obtaining a new production state, and calculating a new production instruction based on the new production state, the special technical feature of Group III is production schedule in the production process is created from a simulation result obtained by repeating processing of calculating production instruction for a time period previously set from present time by optimization calculation processing (instruction calculation time period) to supply the production instruction to production simulator, executing simulation for only a previously set time period (simulation time period) to determine a production schedule for a previously set time period (schedule determination time period), and setting a date and time immediately after the above described determined time period as a new schedule creation starting time and time to formulate a production schedule. Since none of the special technical features of the Group I, Group II, or Group III inventions is found in more than one of the inventions, unity of invention is lacking.

A telephone call was made to John J. Kelly, Jr. on 8/9/07 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In

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either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SPS

Sean P. Shechtman



August 9, 2007

